

Date: Sun, 9 Oct 94 04:30:34 PDT
From: Ham-Space Mailing List and Newsgroup <ham-space@ucsd.edu>
Errors-To: Ham-Space-Errors@UCSD.Edu
Reply-To: Ham-Space@UCSD.Edu
Precedence: List
Subject: Ham-Space Digest V94 #285
To: Ham-Space

Ham-Space Digest Sun, 9 Oct 94 Volume 94 : Issue 285

Today's Topics:

ARLK045 Keplerian data

Phase schedules

STS-68 Orbital State Vector Rev #118 (2 msgs)

Send Replies or notes for publication to: <Ham-Space@UCSD.Edu>

Send subscription requests to: <Ham-Space-REQUEST@UCSD.Edu>

Problems you can't solve otherwise to brian@ucsd.edu.

Archives of past issues of the Ham-Space Digest are available
(by FTP only) from UCSD.Edu in directory "mailarchives/ham-space".

We trust that readers are intelligent enough to realize that all text herein consists of personal comments and does not represent the official policies or positions of any party. Your mileage may vary. So there.

Date: Sat, 08 Oct 1994 14:23:49 EDT
From: w1aw@arrl.org
Subject: ARLK045 Keplerian data

SB KEP @ ARL \$ARLK045
ARLK045 Keplerian data

ZCZC SK13
QST de W1AW
Keplerian Bulletin 45 ARLK045
From ARRL Headquarters
Newington, CT October 8, 1994
To all radio amateurs

SB KEP ARL ARLK045
ARLK045 Keplerian data

Thanks to NASA, AMSAT and N3FKV for the following Keplerian data.

Decode 2-line elsets with the following key:

1 AAAAU 00 0 0 BBBB.BBBBBBB .CCCCCCC 00000-0 00000-0 0 DDDZ
 2 AAAA EEE.EEEE FFF.FFFF GGGGGGG HHH.HHHH III.III JJ.JJJJJJJJKKKKZ
 KEY: A-CATALOGNUM B-EPOCHTIME C-DECAY D-ELSETNUM E-INCLINATION F-RAAN
 G-ECCENTRICITY H-ARGPERIGEE I-MNANOM J-MNMOTION K-ORBITNUM Z-CHECKSUM

STS-68

1 23285U 94062A 94280.25000000 .00020611 11099-4 10039-4 0 285
 2 23285 56.9931 45.4345 0009334 299.6772 57.5316 16.22384282 1096

A0-10

1 14129U 83058B 94274.43486862 .00000009 00000-0 10000-3 0 3153
 2 14129 26.8409 305.1981 6029094 215.5270 82.9344 2.05880028 57002

RS-10/11

1 18129U 87054A 94279.98552238 .00000037 00000-0 24189-4 0 9716
 2 18129 82.9231 246.1970 0013262 75.2276 285.0348 13.72342146365243

U0-11

1 14781U 84021B 94280.05570132 .00000133 00000-0 30314-4 0 7442
 2 14781 97.7849 289.5407 0010794 274.8711 85.1258 14.69250936566734

RS-12/13

1 21089U 91007A 94280.01466294 .00000053 00000-0 39986-4 0 7436
 2 21089 82.9199 288.5164 0029834 154.5663 205.6970 13.74047489184009

A0-13

1 19216U 88051B 94279.82589895 -.00000326 00000-0 10000-4 0 9803
 2 19216 57.7091 227.1681 7236196 351.9333 0.7118 2.09723955 16857

U0-14

1 20437U 90005B 94280.18867452 .00000001 00000-0 17448-4 0 433
 2 20437 98.5863 3.4207 0010360 220.3418 139.6999 14.29856915245594

A0-16

1 20439U 90005D 94280.24002223 -.00000009 00000-0 13633-4 0 8416
 2 20439 98.5955 4.8269 0010596 221.8837 138.1539 14.29910670245619

D0-17

1 20440U 90005E 94280.25338488 .00000005 00000-0 18740-4 0 8424
 2 20440 98.5962 5.2019 0010818 220.2754 139.7626 14.30050727245631

W0-18

1 20441U 90005F 94280.23074718 -.00000017 00000-0 10385-4 0 8450
 2 20441 98.5956 5.1710 0011296 220.7550 139.2789 14.30024326245633

L0-19

1 20442U 90005G 94279.78155006 .00000011 00000-0 21381-4 0 8405
 2 20442 98.5966 5.0139 0011562 222.0533 137.9763 14.30122291245582

F0-20

1 20480U 90013C 94280.40939116 .00000001 00000-0 66623-4 0 7382
 2 20480 99.0559 51.1170 0541207 85.3114 280.9553 12.83227882218522

A0-21

1 21087U 91006A 94278.89635359 .00000094 00000-0 82657-4 0 5263
 2 21087 82.9361 60.7692 0035589 133.3909 227.0221 13.74545850184794

U0-22

1 21575U 91050B 94280.17559102 .00000025 00000-0 23148-4 0 5476
 2 21575 98.4264 352.3581 0007497 322.8605 37.2069 14.36934048169167

K0-23

1 22077U 92052B 94280.43439393 -.00000037 00000-0 10000-3 0 4403
2 22077 66.0816 44.9601 0015333 260.6656 99.2625 12.86287889101225
K0-25
1 22830U 93061H 94280.19155718 .00000005 00000-0 19554-4 0 3441
2 22830 98.5460 350.9336 0010876 205.6748 154.3899 14.28065096 53684
K0-25?
1 22828U 93061F 94276.12717540 .00000047 00000-0 36568-4 0 3151
2 22828 98.6410 350.8797 0009370 240.5615 119.4653 14.28068001 21184
I0-26
1 22826U 93061D 94276.14163591 .00000002 00000-0 18561-4 0 3369
2 22826 98.6421 350.8706 0008492 256.8184 103.2049 14.27740626 53093
A0-27
1 22825U 93061C 94276.09844924 .00000034 00000-0 31673-4 0 3384
2 22825 98.6450 350.7766 0007917 257.5293 102.5036 14.27636072 53085
P0-28
1 22829U 93061G 94276.13467659 -.00000002 00000-0 17110-4 0 3307
2 22829 98.6424 350.9057 0009325 242.1756 117.8479 14.28042098 53107
Mir
1 16609U 86017A 94280.02167417 .00013746 00000-0 19106-3 0 7938
2 16609 51.6465 346.7504 0002920 106.3923 253.7399 15.57299031493441

Keplerian bulletins are transmitted twice weekly from W1AW.
The next scheduled transmission of these data will be Tuesday,
October 11, 1994, at 2230z on Baudot and AMTOR.

NNNN
/EX

Date: 9 Oct 1994 00:07:44 GMT
From: anto@gate.net (Nigel Kirlew)
Subject: Phase schedules

Art Jeyes (art_jeyes@jhuapl.edu) wrote:
: Hi.... I am new to rec.radio.amateur.space and am just thinking about
: getting active in Sat comms....

: Could someone explain the phase schedules I have seen for some of the sat
: modes (I understand the modes Mode B, S etc) just not the phasing..

: for example ... what does MA 20 to MA 50 mean ...

MA stands for mean anomaly. It is a number between 0 and 256. It is used to locate the satellite in it's orbit. For example, MA 0 means the satellite is at perigee (point where satellite height is minimum). At MA 128, the satellite is at apogee (point in orbit where satellite height is maximum). With MA between 0 and 128, the satellite is headed toward apogee. Likewise, if MA is between 128 and 256, the satellite is headed toward perigee. Note

that MA 0 and 256 refer to the same point, perigee.

The MA is frequently used to indicate when transponders will be turned on and off during any orbit.

: Thanks... Art Jeyes
:
:
:
:
AA3GU
Art.Jeyes@jhuapl.edu
AA3GU@W3ZH.MD.USA

--
Nigel Kirlew, N4TKC
anto@gate.net

Date: Fri, 7 Oct 1994 19:54:27 GMT
From: astroman@netcom.com (SignalMan)
Subject: STS-68 Orbital State Vector Rev #118

Vector format = 1017
Satellite Name: STS-68
Catalog Number: 23285 94062A
Epoch Date/Time: 94280.68261223380
10/07/1994 16:22:57.697 UTC
ECI X: 15020015.927823 ft
M50 Y: 15437410.467789 ft
Z: 1689711.547567 ft
Xdot: -11119.25391 ft/s
Ydot: 8476.57812 ft/s
Zdot: 21367.92578 ft/s
ndot/2 (drag): 0.00258400083 rev/day^2
nddt/6: 2.73900E-07 rev/day^3
Bstar: 8.59739E-05 1/Earth Radii
Elset #: 15
Rev @ Epoch: 118.01546193727

MSDOS/PC software is available for conversion of
OSV to 2 Line Keplerian Elements via ftp to:
oak.oakland.edu:/pub/msdos/hamradio/v2l9331.zip
and the SIMTEL archives.

State Vectors courtesy Ken Ernandes N2WW

SM

Date: Sat, 8 Oct 1994 22:09:07 GMT
From: astroman@netcom.com (SignalMan)
Subject: STS-68 Orbital State Vector Rev #118

Vector format = 1017
Satellite Name: STS-68
Catalog Number: 23285 94062A
Epoch Date/Time: 94280.68261223380
10/07/1994 16:22:57.697 UTC
ECI X: 15020015.927823 ft
M50 Y: 15437410.467789 ft
Z: 1689711.547567 ft
Xdot: -11119.25391 ft/s
Ydot: 8476.57812 ft/s
Zdot: 21367.92578 ft/s
ndot/2 (drag): 0.00258400083 rev/day^2
nddt/6: 2.73900E-07 rev/day^3
Bstar: 8.59739E-05 1/Earth Radii
Elset #: 15
Rev @ Epoch: 118.01546193727

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and the SIMTEL archives.

State Vectors courtesy Ken Ernandes N2WW

SM

End of Ham-Space Digest V94 #285
